

**REMARKS/ARGUMENTS**

The Final Office Action mailed July 3, 2008 has been considered. Entry and consideration of the Amendments and Remarks, and reconsideration of all claims remaining of record as presently amended are respectfully requested.

Applicants have amended independent claim 1 above so as to give greater emphasis to some of the novel and patentable features of Applicants' invention.

**Re the 35 U. S. C. § 103(a) Rejection:**

The rejection of claims 1-6 under 35 U.S.C. §103(a) as allegedly being unpatentable over Makagon et al. (U.S. Patent No. 7,222,301) in view of Blum et al. (U.S. Patent No. 6,982,649) is respectfully traversed.

Applicants respectfully disagree with the Examiner's contention that "Makagon and Blum complete each other to teach all the claim's limitations as set forth in Applicant's claims." Neither Makagon et al. nor Blum et al. teach or suggest technology that is operable to recognize and distinguish human voice commands and other spoken information in very noisy environments. The Examiner has already recognized that Makagon et al. does not explicitly teach or suggest providing background noise suppression to reduce or substantially eliminate non-speech ambient background noise in high background noise environments (see 7/3/08 Office Action at page 2), and Applicants respectfully contend that the Blum et al. '649 patent is clearly not concerned with innovations in the technological field of voice-responsive computing/communications devices or the suppression/elimination of non-speech ambient background noise for the purpose of discerning human speech and commands. In this regard, Applicants respectfully point out that the Blum et al. patent is directed to sound/noise *sensing*,

not suppression – and primarily toward a floor display system that detects the presence or activity of a person in the vicinity of a display to activate a visual display or other output.

In particular, Blum et al. does not teach or suggest performing *noise suppression* to reduce or substantially eliminate non-speech ambient background noise, rather, the Blum patent only suggests that in noisy environments one could use a microphone having high directional sensitivity “to filter through sounds coming from a particular direction while blocking out random environmental noise” (‘649 patent at col. 8, lines 34-39) – which is *not* a form of *noise suppression* per se but rather an application of sonic selectivity through the use of directional exclusivity. Moreover, the Blum et al. apparatus would not operate successfully (nor could it be expected to operate successfully) in Makagon et al.’s system to provide “a voice-responsive computing/communications device . . . providing speech recognition and adaptively providing background noise suppression to reduce or substantially eliminate non-speech ambient background noise”, as set forth in applicants’ claims.

In addition, the cited combination of the Makagon et al. and Blum et al. references fail to teach or suggest *all the claim limitations* as set forth in Applicants’ claims as presently amended. In particular, as presently amended, independent claim 1 sets forth “circuitry for providing a first stage of analog domain active noise cancellation wherein certain predetermined frequency bands of noise are eliminated in the analog domain from a signal produced from said microphone, and a programmable second stage of adaptive digital domain noise cancellation wherein specific predetermined ambient noises and/or noise bands are continually identified and subtracted according to their characteristic digital frequency domain signature in the digital domain for providing customizable background noise suppression which is programmably adaptable to changes in ambient background noise to reduce or substantially eliminate non-speech ambient

background noise in high background noise environments". Neither the cited combination of Makagon et al. and Blum et al. nor any of the prior art references of record considered alone or together with Makagon et al. or Blum et al. teach or suggest these patentable features of claim 1 as currently amended. For at least the above reasons, Applicants respectfully contend that independent claim 1 is unobvious and patentable.

Dependent claims 2-6, being dependent on claim 1, are likewise solicited as being patentable over the prior art references of record for at least the same reasons as set forth above in regard to claim 1.

The above amendments to claim 1 are fully supported by the original disclosure (see for example, Applicants' specification at page 12-13, paragraphs 24 and 25) and, thus, no new matter has been added. If the Examiner should disagree, however, it is respectfully requested that the challenged limitation be pointed out with particularity in the next Action so support may be cited in response.

In view of the Applicants' forgoing amendments and remarks, it is believed that the application is presently in condition for immediate allowance. Favorable consideration is respectfully solicited. If any small matter remains outstanding, the Examiner is encouraged to telephone Applicants' representatives at the telephone number listed below.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: 

William G. Niessen

Reg. No. 29,683

901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000